

DIALOG(R)File 351:Derwent WPI  
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AA- 1992-403385/199249|  
XR- <XRAM> C92-179159|  
TI- Lipid decomposition enzyme inhibitor preventing hyperlipaemia and obesity - contains basic proteins, extracted from wheat germ with acidic soln.|  
PA- NISSHIN FLOUR MILLING CO (NISS )|  
NC- 001|  
NP- 002|  
PN- JP 4300839 A 19921023 JP 9187246 A 19910328 199249 B|  
PN- JP 3009498 B2 20000214 JP 9187246 A 19910328 200013|  
AN- <LOCAL> JP 9187246 A 19910328; JP 9187246 A 19910328|  
AN- <PR> JP 9187246 A 19910328|  
FD- JP 4300839 A A61K-037/64  
FD- JP 3009498 B2 A61K-038/55 Previous Publ. patent JP 4300839|  
LA- JP 4300839(5); JP 3009498(5)|  
AB- <BASIC> JP 4300839 A

A lipid decompsn. enzyme inhibitor contains basic proteins from wheat germ as the active component. In the prepn. of basic proteins, wheat germ is extracted with an acidic soln.

USE/ADVANTAGE - The inhibitor prevents hyperlipaemia and fatness. The method can prepare the basic proteins by a simple manner safely.

In an example, 50g defatted wheat germ is mixed with 5 times amt. of water and the mixt. is stirred at room temp. for 2 hrs. and centrifuged for 20 min. The ppt. is mixed with 5 times amount of water and centrifuged. The procedure is repeated 3 times. The ppte. is mixed with 5 times amt. of water and the pH is adjusted to 2.0 with 6N HCl. The mixt. is stirred at room temp. for 2 hrs. and centrifuged. The acid extraction is repeated. The acid-soluble fraction is recovered and its pH is adjusted to 7.0 with NaOH. NaCl and Tris buffer are added and the mixture is fed to a CM-Toyopearl column and eluted by Tris buffer contg. NaCl. The elute is freeze-dried to give 50mg powder. It is a mixt. of several basic proteins. Pig pancreas lipase activity is inhibited to 20.1% by a dose of 500 microg/l of the basic protein.

Dwg.0/0|

DE- <TITLE TERMS> LIPID; DECOMPOSE; ENZYME; INHIBIT; PREVENT; HYPERLIPAEMIA; OBESITY; CONTAIN; BASIC; PROTEIN; EXTRACT; WHEAT; GERM; ACIDIC; SOLUTION|

DC- B04|

IC- <MAIN> A61K-037/64; A61K-038/55|

IC- <ADDITIONAL> A61P-003/06; C07K-003/02; C07K-003/20; C07K-015/10|

MC- <CPI> B04-B04F; B12-H03; B12-J02|

FS- CPI||

JP 4300839

PURPOSE: To suppress or inhibit lipolysis, prevent ingested lipids from being rapidly absorbed in bodies, suppress the amount of the total absorbed fats and prevent hyperlipemia and obesity by inhibiting activity of a lipolytic enzyme.

CONSTITUTION: A lipolytic enzyme inhibitor containing a basic protein derived from wheat embryo buds as an active ingredient. Furthermore, a basic protein, derived from wheat embryo buds and having amino acids ranging from the 1st to the 40th residues counted from the N-terminal as follows. Gly-Lys-Val-His- GlyS-er-Leu-Ala-Arg-Ala-Gly-Lys-Val-Arg-Gly-Gln-Thr-Pro-Lys-Val-Ala-Lys-Gln- Asp-Lys-Lys-Lys-Gln-Pro-Arg-Gly-Arg-Ala-H-is-Lys-Arg-Ile-Gin-Tyr-Asn. The number of total bound amino acids is within the range of about 60-100.